

**REMARKS**

Claims 1-9 are currently pending in the present application. Claims 1 and 2 have been amended herein, support for which may be found in the specification, at least, at page 9, lines 16-17.

***Rejections under 35 USC 103(a)***

Claims 1-4 and 6-9 stand rejected under 35 USC 103(a) as being unpatentable over **USP 5,449,353 to Watanabe et. al (“Watanabe”)** in view of **USP 5,858,012 to Yamaki et. al (“Yamaki”)**.

Claim 5 is rejected under 35 USC 103(a) as being unpatentable over **Watanabe in view of Yamaki**, and further in view of **USP 5,021,050 to Iskra (“Iskra”)**.

Applicants respectfully traverse the above rejections.

**Legal Standard for Determining Prima Facie Obviousness**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to

the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v Teleflex Inc.*, 127 S. Ct. 1727 (2007).

The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007) reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

*Graham v. John Deere*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc.*, *supra.*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art

to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

*The Present Invention and Its Advantages*

The present invention provides for an advantageous diaper, which possesses unexpectedly good properties relating to fitability and sustained fit, as evidenced by properties such as fit, ease of putting on a wearer and resistance to sagging as described in the instant specification. *(For example, see Table 1 at page 14 of the specification, which is reproduced below for the Examiner's convenience.)*

**TABLE 1**

	Example				Comparative Ex.	
	1	2	3	4	1	2
Diaper Width W1 (mm)	380	380	300	600	380	300
Absorbent Core Width W2 (mm)	140	180	100	250	140	200
Body-surrounding Elastic Member Width W3+W4 (mm)	240	240	200	400	50	200
Stress $\sigma_w$ of Waist Opening Portion (gf/cm)	100	100	80	180	100	80
Stress $\sigma_b$ of Body-surrounding Portion (gf/cm)	25	25	20	100	25	20
Taber Stiffness of Absorbent Core (gf-cm)	5	5	1.5	10	5	1.5
Fit	A	A	A	B	C	B
Ease in Putting on Wearer	A	A	A	A	C	B
Resistance to Sagging	A	A	A	A	C	B

The advantages possessed by the claimed diaper results in part from use of a plurality of body-surrounding elastic members that are disposed at side portions of the diaper, wherein the body-surrounding elastic members are not disposed in at least a center portion of a body-surrounding portion wherein an absorbent core exists, wherein the body-surrounding elastic

members are disposed between an outer sheet which constitutes an outermost surface of the diaper and the anti-leakage sheet of the diaper, and wherein the body-surrounding portion where the body-surrounding elastic member are disposed has a 30% elongation stress  $\sigma_D$  of 10 to 40 gf/cm.

By utilizing such a construction, fitability of the diaper is greatly improved, and at the same time bunching of the absorbent core is avoided, which produces other advantageous effects as discussed in the application.

*Distinctions Over the Cited Art*

Independent claims 1 and 2 have been amended herein to additionally require that:

**“the body-surrounding portion where the body-surrounding elastic member are disposed has a 30% elongation stress  $\sigma_D$  of 10 to 40 gf/cm.”**

Watanabe differs from the presently claimed invention in that Watanabe does not teach or suggest a shorts-type disposable diaper, which meets the newly added claim limitation.

To further distinguish the claimed invention from Watanabe, Applicants submit herewith a **Declaration Under 37 C.F.R. § 1.132** which demonstrates the superior and unexpected advantages of the present claimed invention.

Upon comparison of the present invention (“*A*”) and Watanabe (“*B*”), it is apparent that the stress of the body-surrounding portion D is greater than that of the reference Watanabe. ***The stress of the body-surrounding portion D ( $\sigma_D$ ) the present invention is 20.63 gf/cm compared to 7.81 gf/cm of Watanabe.*** This difference is substantial and greatly contributes to the surprising and unexpected improved fit of the present invention. In addition, the number of string elastic members of the present invention is more than that of Watanabe, so that the width of gather was

able to be broadened. This is significant because by increasing the breadth of the gather, the width in which the body is suppressed broadens, and the wearer's comfort can be substantially increased.

Evidence of unexpected results must be weighed against evidence supporting *prima facie* obviousness in making a final determination of the obviousness of the claimed invention. *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978). Evidence of unobvious or unexpected advantageous properties, such as superiority in a property the claimed compound shares with the prior art, can rebut *prima facie* obviousness. *See MPEP 716.02(a)*. Unexpected beneficial results are evidence of unobviousness thereof. *In re Gershon*, 372 F.2d 535, 538, 152 USPQ 602, 604 (CCPA 1967).

Applicants have demonstrated the superior and unexpected beneficial results of the present invention. Thus, Applicants have rebutted the Examiner's assertion of *prima facie* obviousness. Accordingly, in view of the foregoing, Applicants believe the pending application is in condition for allowance. A Notice of Allowance is earnestly solicited.

#### Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Monique T. Cole, Reg. No. 60,154 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 09/931,028  
Amendment dated October 30, 2007  
Reply under 37 C.F.R. § 1.114

Docket No.: 0445-0302P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: OCT 29 2007

Respectfully submitted,

By 

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**Attachment: Declaration Submitted Under 37 C.F.R. § 1.132**